

**Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, DC 20554**

In the Matter of	)	
	)	
Service Rules for the 698-746,747-762	)	
and 777-792 MHz Bands	)	WT Docket No. 06-150
	)	
Revision of the Commission's Rules to Ensure	)	
Compatibility with Enhanced 911 Emergency	)	CC Docket No. 94-102
Calling Systems	)	
	)	
Section 68.4(a) of the Commission's Rules	)	
Governing Hearing Aid-Compatible	)	
Telephones	)	WT Docket No. 01-309
	)	
Biennial Regulatory Review – Amendment of	)	
Parts 1, 22, 24, 27, and 90 to Streamline and	)	WT Docket No. 03-264
Harmonize Various Rules Affecting Wireless	)	
Radio Services	)	
	)	
Former Nextel Communications, Inc.	)	
Upper 700 MHz Guard Band	)	WT Docket No. 06-169
Licenses and Revisions to Part 27 of	)	
the Commission's Rules	)	
	)	
Implementing a Nationwide,	)	
Broadband, Interoperable Public	)	PS Docket No. 06-229
Safety Network in the 700 MHz	)	
Band	)	
	)	
Development of Operational, Technical and	)	WT Docket No. 96-86
Spectrum Requirements for Meeting Federal,	)	
State and Local Public Safety	)	
Communications Requirements Through the		
Year 2010		

COMMENTS OF UNITED STATES CELLULAR CORPORATION

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COMMENTS OF UNITED STATES CELLULAR CORPORATION

United States Cellular Corporation ("USCC"), by its attorneys, respectfully submits its comments in response to the Commission's Report and Order ("R&O") and Further Notice of Proposed Rulemaking ("Further Notice"), FCC 07-72 (released April 27, 2007) in the above captioned proceedings addressing rules governing wireless licenses in the 698-806 MHz Band (herein, the "700 MHz Band").

### **Introduction and Summary**

We strongly support the Commission's decision to adopt a mix of geographic license area sizes for the 700 MHz commercial services, including Cellular Market Areas (CMAs), Economic Areas (EAs), and Regional Economic Area Groupings (REAGs). We believe that the Commission's band plan decisions should be guided by the following objectives:

- (1) Auction at least four license blocks using CMA and EA service areas.
- (2) Create several paired 2 x 5 MHz and 2 x 6 MHz blocks to promote significant entry opportunities for local, rural and regional service providers as well as aggregation, capacity growth, geographic expansion and in-fill opportunities for incumbent providers of all sizes; and
- (3) Locate the channel blocks to allow aggregation of contiguous spectrum to meet the needs of entities of all sizes.

We support the Lower Band Plan proposal (Further Notice, Paras. 178-181) to adopt EAs as the geographic area for licenses in the existing A Block and CMAs as the geographic service area for licenses in the existing B Block. We also support two of the proposals (Further Notice, Paras. 183-206) to adopt multiple EA and/or CMA licensing opportunities in the Upper Band Plan, i.e. Proposals #2 and #5 (but not package bidding).

We continue to strongly oppose the use of package bidding methodologies in the auction of 700 MHz spectrum because of the bias, complexity and lack of real world experience with package bidding methodologies. Our objections are reinforced by the fact that the Commission is considering procedures which would combine for the first time simultaneous multiple-round and combinatorial or package procedures in a single auction. The Commission's use of familiar, simultaneous multiple-round auction methodologies without package bidding has been consistently found to be fair, objective, open and transparent to all bidders. In the extremely high-stakes 700 MHz auction, the Commission stands the best chance of duplicating the success of Auction #66 by sticking with its familiar SMR auction procedures.

We strongly oppose the proposal to substitute geographic coverage performance requirements for the FCC's current, more flexible "substantial service" requirements. The current requirements provide licensees with the necessary flexibility to construct wireless systems in accordance with marketplace realities, in contrast with regulatory commands. These and the related cellular and PCS performance requirements have been essential to the creation of a flourishing national wireless network. Also, the proposed performance requirements, coupled with the new uncertainty regarding license renewals created by the R&O in this proceeding, would limit new entrants, could undermine the quality of network buildout investments in wireless systems and would be detrimental to the public interest.

We oppose the Frontline proposal. It is inconsistent with other spectrum allocations in this proceeding, unfairly favors one carrier's business plan, and is based on an untried "wholesale" service model. Also, Frontline's additional substantive proposals should be considered in other dockets.

We also oppose any restrictions on eligibility to participate in the auction. If the FCC wishes, however, to prevent excessive spectrum concentration, it can do so through "spectrum caps," which would treat all participants fairly.

Finally we reiterate our view that open bidding provides bidders, especially small and regional bidders, with important real-time information that helps them make appropriate strategic technology and evaluation decisions and supports confident and active participation in the spectrum auction. If the Commission has specific concerns about whether the upcoming 700 MHz auction will be adequately competitive, it should apply an eligibility threshold ratio, updating the ratio originally adopted in connection with Auction #66 to a more realistic 2.5 trigger. We also believe that the possible use of anonymous bidding should not be a factor on which the Commission should base its determination of a final band plan. Also in the event the Commission were to allow constrained combinatorial or package bidding such as the Commission is considering in Proposals 1, 4 and 5, we believe that anonymous bidding should not be imposed because it would unfairly burden or foreclose the attempts of bidders for parts of a package from outbidding a provisionally winning package bid.

### **Discussion**

1. The Commission Should Adopt a Balanced Approach to Selection of the Geographic Sizes, Spectral Sizes and Locations of Channel Blocks in its Final Band Plan.

We strongly support the Commission's decision to adopt a mix of geographic license area sizes for the 700 MHz commercial services, including Cellular Market Areas (CMAs), Economic Areas (EAs), and Regional Economic Areas (REAGs). In doing so, the Commission has recognized that one size does not fit all and that geographic license size diversity was a major contributor to the phenomenal success of Auction #66. For the many reasons previously

articulated in our Comments, Reply Comments and ex parte submissions in these proceedings, we support adoption of a revised mix of smaller license sizes to " ... provide a more balanced set of initial licensing opportunities at this time and make available more licenses to match the needs of different potential users.' "(R&O, Para 43) We also support the Commission's decision not to adopt nationwide licensing for any of the 700 MHz Commercial Services Band spectrum blocks. (R&O, Para. 45)

The foregoing decisions are important first steps but, as described in the Commission's Further Notice, most significant elements of the band plans for the unauctioned portions of the Lower and Upper 700 MHz bands remain unresolved. These include selection of geographic sizes for individual channel blocks, the spectral size and locations of those channel blocks, and the relationships of those channel blocks to incumbent licensed spectrum including "core" television broadcast operations, previously auctioned 700 MHz commercial spectrum, previously auctioned Guard Band spectrum and the 24 MHz Public Safety block.

We strongly support adoption of a balanced approach to geographic selection as an appropriate means to foster services in rural as well as non-rural markets. The successful participation of numerous new and incumbent local, rural, regional and national providers in Auction #66 is powerful evidence that a balanced band plan which flexibly accommodates a variety of business plans enhances auction efficiency and public welfare. We urge the Commission to make changes in its band plan, as it did in its AWS proceeding, by adopting service area sizes that are accessible to local, rural and regional carriers and make available to them adequate spectrum to introduce new advanced services, to expand their coverage and to enter new markets. Given the outstanding propagation characteristics of this spectrum it is vital

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<sup>1</sup> See Balanced Consensus Plan; USCC Comments in WT Docket No. 06-150 at 3; Corr Comments in WT Docket No. 06-150 at 3; NTCA Comments in WT Docket No. 06-150 at 5-6.



that a large cross section of potential bidders be given the ability to compete in this auction. By affording realistic bidding opportunities to a variety of applicants, the adoption of small service area sizes, such as EA and CMA areas, will enhance entry, diversity and competition and will promote early deployment of advanced technologies consistent with the objectives of Section 309(j) of the Act.

We believe that the Commission's band plan decisions should be guided by the following objectives to make sure that a wide variety of applicants, including local, rural and regional providers, have substantive and realistic opportunities to acquire 700 MHz spectrum.

(1) Auction at least four license blocks using a combination of CMA and EA service areas.

(2) create multiple entry opportunities for local, rural and regional service providers as well as aggregation, capacity growth, geographic expansion and in-fill opportunities for incumbent providers of all sizes by licensing paired 2 x 5 MHz and 2 x 6 MHz blocks;

(3) organize the channel blocks to permit multiple ways of aggregating contiguous spectrum to meet the needs of entities that may want to acquire greater amounts of spectrum capacity for the deployment of advanced services.

We believe that several of the specific band plan proposals in the Commission's Further Notice potentially can be combined into a comprehensive 700 MHz band plan which meets the objectives outlined above. We support the Lower Band Plan proposal (Further Notice, Paras 178-181) to adopt EAs as the geographic area for licenses in the existing A Block and CMAs as the geographic service area for licenses in the existing B Block. We also support two of the proposals (Further Notice, Paras 183-206) to adopt multiple EA and/or CMA licensing opportunities in the Upper Band Plan, i.e. Proposals #2 and #5 (but not package bidding). In the

following paragraphs we discuss why we support or oppose each of the band plan proposals in the Commission's Further Notice.

#### Lower Band Plan Proposal.

Adoption of EAs as the geographic area for licenses in the A Block and CMAs as the geographic service area for licenses in the B Block will encourage the active participation of incumbents and potential new entrants of all sizes and serving all types of markets.

We agree with the Commission's analysis in its AWS proceeding that CMAs allow these entities to mix and match rural and urban areas according to their business plans and that, by being smaller, these types of geographic service areas provide entry opportunities for smaller carriers, new entrants, and rural telephone companies<sup>2</sup> and that offering an additional EA paired block licenses enhances the mixture of large and small geographic area licenses available to applicants for this spectrum.<sup>3</sup> The same is true in the 700 MHz band. Also under this proposal C Block incumbents will have unique CMA aggregation options.

#### Upper Band Plan Proposals.

(a) Proposal #1 - We oppose adoption of this proposal because it limits access to upper band spectrum opportunities to extremely large carriers with the financial resources to deploy networks on such a large scale. Exclusive use of REAG service area sizes, including the combination of such sizes with large spectrum block sizes, skews the auction in favor of larger bidders and makes it unfair and unworkable for local, rural, and regional providers and new entrants. Smaller bidders are effectively foreclosed from bidding on REAG licenses. But the

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<sup>2</sup> See Service Rules for Advanced Wireless Services in the 1.7MHz and 2.1 GHz Bands, Report & Order, 18 FCC Rcd 25162,21577 (2003), Para. 39.

<sup>3</sup> See Service Rules for Advanced Wireless Services in the 1.7MHz and 2.1 GHz Bands, Order on Reconsideration, 20 FCC Rcd 14058,14068 (2005), Para. 18.

same is not true of larger bidders who, if they are unsuccessful in acquiring REAG licenses, still have realistic opportunities to aggregate EA and/or CMA licenses by outbidding smaller bidders.

(b) Proposal #2 - We support adoption of this proposal. The creation of two 11-megahertz licenses (the C and D blocks) – and a 12-megahertz E block means that as many as six license blocks will be available for auction. We prefer the option discussed in the Further Notice for the two of these three blocks to be licensed in adjacent blocks, one on a CMA basis and the other on an EA basis, since this would provide the greatest balance of local and regional opportunities. This means that local, rural and regional providers would be able to bid on as many as four EA and/or CMA licenses (of the overall total of six). In addition, this licensing structure benefits providers of all sizes because it offers bandwidth that can still be aggregated which encourages efficient uses of the spectrum without the necessity for multiple secondary market transactions such as partitioning and disaggregation.

(c) Proposal #3 - We oppose adoption of the Access Spectrum "alternative" proposal to establish a C Block comprised of a 22 MHz block (two 11 MHz paired blocks) and a D Block comprised of a 10 MHz block, (two 5 MHz paired blocks). While the Further Notice does not discuss the specific geographic service areas included in this proposal, it appears from one Access Spectrum ex parte submission<sup>4</sup> that it may have originally intended the C Block to be REAG and the D Block to be MEA. As discussed above in connection with Proposal #1, the Commission should not adopt this proposal.

(d) Proposal #4 - We oppose Proposal #4 because, while it does make one additional EA license available, it does not create additional opportunities at the CMA level. In the event,

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<sup>4</sup> See Letter from Ruth Milkman, counsel to Access Spectrum, LLC and Kathleen Wallman, adviser to Pegasus Communications Corporation, to Marlene H. Dortch, Secretary, FCC, *Ex Parte* in WT Docket Nos. 06-169, 06-150 and 96-86 (filed Apr. 18, 2007).

however, that the Commission adopts this proposal and also adopts the Frontline proposal, we do agree with the Commission's conclusion that, at a minimum, the D block should then be licensed on an EA basis. In any case, under both versions of Proposal #4 there would be only one Lower band CMA license available in the auction and no CMA license in the Upper band, greatly disadvantaging smaller bidders. As discussed above, smaller bidders are effectively foreclosed from bidding on REAG licenses. But the same is not true of larger bidders who, if they are unsuccessful in acquiring REAG licenses, still have realistic opportunities to aggregate EA licenses by outbidding smaller bidders. This band plan proposal works against smaller bidders by isolating an EA license in the Upper band adjacent to REAG or national licenses and by creating powerful incentives for larger bidders interested in these REAG or national blocks to attempt to aggregate this EA spectrum.

(e) Proposal #5 - For many of the same reasons described above in connection with Proposal #2, we also support Proposal #5 (but not package bidding) to license the C and D blocks as two 11 MHz licenses (each composed of two 5.5 MHz paired blocks), with a 10-megahertz E Block (composed of paired 5-megahertz blocks). As proposed the C Block would be licensed on an REAG basis, and the D and E Blocks would be licensed on an EA basis. We support the concept that two of the three designated license pairs in the Upper band would be EA or CMA Blocks and that these blocks would be adjacent to one another.

2. The Commission's 700 MHz Auction Should Include All of the Licenses for the Spectrum in a Single Auction Without Using Package Bidding Procedures.

We continue to oppose the use of package bidding methodologies in the extremely high stakes auction of 700 MHz spectrum because of the bias, complexity and lack of real world experience with package bidding methodologies. These concerns are complicated by the fact that the Commission is considering procedures which would combine for the first time simultaneous

multiple-round ("SMR") and combinatorial or package ("SMR-PB") procedures in a single auction. The example of Auction #66 which Chairman Martin and others have called the most successful auction in Commission history demonstrates that use of familiar SMR auction methodologies without package bidding has been consistently found to be fair, objective, open and transparent to all bidders. In the very high-stakes 700 MHz auction, the Commission stands the best chance of duplicating the success of Auction #66 by sticking with its familiar SMR procedures.

Economists have pointed to major flaws in proposal after proposal for package auction rules.<sup>5</sup> Auction #51 failed to attract significant interest and did not provide significant real-world experience on SMR-PB that would be indicative for a large, very high-stakes auction like the 700 MHz auction. The FCC recognized its need for guidance on many SMR-PB rules, commissioned a study, but so far has not yet disclosed any results or solicited any public comment on this study.<sup>6</sup> More recently we and others have requested that the Commission conduct a public forum to obtain further guidance on whether and how to implement SMR-PB methodologies.

The lack of relevant real world experience with SMR-PB is particularly glaring considering that the Commission is proposing to implement a hybrid auction design under which some licenses would be auctioned under SMR and some others under SMR-PB methodologies.

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<sup>5</sup> See K. Hoffman, "Issues in FCC Package Bidding Auction Design" (Nov. 22, 2003) (presented at the FCC's Combinatorial Bidding Conference Nov. 21-23, 2003); D. Porter, *et al.*, "Combinatorial Auction Design" (June 17, 2003) (presented at the FCC's Combinatorial Bidding Conference Nov. 21-23, 2003); L. Ausubel, P. Cramton & P. Milgrom, "The Clock-Proxy Auction: A Practical Combinatorial Auction Design" (P. Cramton, *et al.*, Combinatorial Auctions (2006)); L. Ausubel & P. Milgrom, "Ascending Auctions with Package Bidding" (June 7, 2001) (presented at the FCC's Combinatorial Bidding Conference Oct. 26-28, 2001).

<sup>6</sup> See Comment Sought on Experimental Design for Examining Performance Properties of Simultaneous Multiple Round Spectrum License Auction with and without Combinatorial Bidding, 20 FCC Rcd 8685 (2005). The public comments filed in DA 05-1267 noted the limited applicability of any findings from such a small experiment to a large, real-world auction. Any findings by the experimenters should be subject to public comments before the FCC relies on them.

The added complexity and uncertainty of concurrent bidding for SMR and SMR-PB licenses could harm most bidders (since the few, very largest bidders would have the advantage of aggregating REAG licenses). This is true even for smaller bidders who do not intend to bid on the licenses subject to the SMR-PB because they still could be harmed in several ways.

The "threshold problem"<sup>7</sup> is inherent in SMR-PB auctions and creates a bias against all but the largest bidders. Because of this problem, any bidder interested in acquiring a license which is part of a package has a better chance of winning in a SMR auction than if that same license is subject to SMR-PB bidding procedures. This bias against all but the largest bidders potentially has the effect of forcing all other bidders to bid more aggressively on the remaining licenses which are not included in any package, such as EA and even CMA licenses. This distortion would increase the prices of these licenses, resulting in an extra burden on smaller bidders that may easily deprive them of licenses or increase their costs.

In addition to the "threshold problem," bidders may be deterred from participating in the 700 MHz auction because of a form of "exposure problem" arising from the combination of SMR and SMR-PB in the same auction. A SMR-PB bid that is not a winner in the round when submitted may emerge as a winner in a subsequent round through the Commission's bid reactivation procedures because of the actions of other bidders.<sup>8</sup> This outcome would not be

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<sup>7</sup> "This is known as the 'threshold problem.' . . . [In a package bidding auction,] the positive effect of an increase in one small bidder's bid for other small bidders creates incentives for small bidders to "free ride," i.e., to let others bear the costs of outbidding the package bidder. Moreover, small bidders face a coordination problem in that their combined total bid needs to rise to overthrow the package bid, but an increase that overshoots the minimum required amount is wasteful from their point of view." [Excerpted from FCC Public Notice, "Comment Sought on Experimental Design for Examining Performance Properties of Simultaneous Multiple Round Spectrum License Auctions With or Without Combinatorial Bidding" (DA 05-1267) released May 2, 2005, pp. 9-10 of attached Description of Proposed Study Design.]

<sup>8</sup> The FCC's Auction #51 procedure considers all of the bids submitted (and all of the currently-high bids "renewed") by a bidder in a single round to be linked together as a single "round-bid". For all practical purposes, in each round of the auction, a bidder submits not only a new set of bids, but also (perforce) resubmits every previous round-bid. The FCC is free to temporarily ignore the bidder's latest bids, and instead use the bids from an earlier round-bid in their stead (if those previous bids, together with a selection of current and past round-bids for the other bidders, jointly maximize current auction revenues).

transparent to the bidder, but the bidder could not withdraw the SMR-PB bid after the round in which it was submitted has closed.<sup>9</sup> Because its SMR-PB bid was initially unsuccessful, the bidder could decide to revise its bidding strategies to focus on individual licenses in the SMR auction. It would then be exposed to the risk under bid reactivation of becoming the high bidder for a combination of licenses different from what it first sought, including some in the SMR-PB portion and others in the SMR portion. In deciding how to bid in any one round, a bidder must anticipate all the potential negative consequences that round-bid might have if reactivated in any later round of the auction. Such possibilities impose a substantial strategic burden on all these bidders except for those seeking packages.

The "exposure problem" mentioned above also could have negative impact on bidders who have never bid on a portion of a package. As described below, there is a significant strategic risk for these bidders of becoming the high bidder for a set of licenses different from what they desire and anticipate because of the Commission's SMR-PB bid reactivation feature. This occurs because under the Commission's Auction #5 1 SMR-PB procedures there is a cascade effect where provisionally winning bids are replaced as illustrated in the following example.

Example: Consider Bidder X seeking either CMA licenses A and B (adjacent licenses extending the bidder's coverage in one direction) or CMA licenses C and D (adjacent, and extending coverage in another direction). This bidder might have competed for A and B for a while, and then shifted to C and D in later rounds (because B became too expensive), and might at some point be sitting happily (unchallenged) on C and D. Suddenly, another bidder, Bidder Y, currently high on A, finds an earlier round-bid reactivated in order to help beat a package bid. In this earlier round-bid, Bidder Y hadn't submitted a bid on license A. In order to maximize

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<sup>9</sup> See FCC Public Notice, "Auction of Regional Narrowband PCS Licenses Scheduled for September 24, 2003" (DA 03-1994), released June 18, 2003 (Report No. AUC-03-51-B; Auction No. 51), pp. 28-29.

current auction revenues, the FCC reactivates Bidder X's earlier bids on A (now winning) and B (now losing), and withdraws the bidder's current bids on C and D (reactivating, in turn, yet other bidders' bids on C and D). Bidder X has gone from holding C and D to less-happily holding A only. The complexity of this only increases as the auction progresses since an ever greater number of past "round-bids" become potentially active. This would increase the time required to make informed bidding decisions (especially for small bidders with limited computational and human resources available) and, assuming the Commission appropriately extends the time for each round, could substantially lengthen the auction.

In other words, use of SMR-PB procedures could cause significant "exposure" and strategic complexity problems for smaller bidders because of the combination of SMR and SMR-PB in the same auction. The uncertainty and strategic risk imposed by the use of these complex procedures could deter some bidders from participating in the 700 MHz auction, leading to a less competitive auction, lower auction revenues, and a failure to achieve important statutory policy objectives under Section 309 (j) of the Communications Act.<sup>10</sup>

In summary, the FCC has recognized that package bidding involves substantial risks that at best require careful design of auction rules." Not much is known yet about the specific details of the package methodologies which the Commission may be considering. This much however is clear. Package bidding procedures are controversial, complex, largely untested and unfamiliar to bidders and the time remaining for the Commission to explore issues with these procedures

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<sup>10</sup> See 47 U.S.C. § 309(j)(3)(A) ... (statutorily directed goals to promote service to rural areas); 47 U.S.C. § 309(j)(3)(A), (4)(C)(iii) ... (promotion of investment in and the rapid deployment of new technologies and services); and 47 U.S.C. § 309(j)(3)(B), (4)(C) ... (avoidance of the excessive concentration of licenses, and provide for the dissemination of licenses among a wide variety of applicants).

<sup>11</sup> See Auction for Licenses in the 747-762 and 777-792 MHz Bands, 15 FCC Rcd 11526, at 11532 (2000) (Auction 31; "allowing an unlimited number of packages could be needlessly complex, and could facilitate strategic bidding"); Comment Sought on Experimental Design for Examining Performance Properties of Simultaneous Multiple Round Spectrum License Auction with and without Combinatorial Bidding, 20 FCC Rcd 8685 (2005); note 17, supra. See also P. Klemperer, "What Really Matters in Auction Design," 16 J. Econ. Perspectives 169 (2002).



before the 700 MHz auction is short. This may discourage participation, especially by smaller, less sophisticated bidders. With, no close real-world experience and extremely high stakes, the FCC should not apply SMR-PB to any 700 MHz licenses.

3. The Commission Should Not Adopt Geographic Area Performance Requirements.

In the Further Notice (Para. 212), the Commission proposes a radical change from the performance requirements it adopted for 700 MHz licensees in 2000.<sup>12</sup> It is now proposed that 700 MHz licenses would be required to cover 25% of the geographic area of their licensed service areas within three years of license grant, 50% within five years and 75% within eight years. We strongly oppose this proposal.

As codified in Section 27.14(a) of the Commission's Rules, 700 MHz licensees are now required to provide "substantial service" within ten years of the issuance of their licenses. In the Upper 700 MHz Report and Order, the Commission established "safe harbors" for meeting the "substantial service" requirement. For mobile services, 20% coverage of the population of a given service area is sufficient to meet the safe harbor requirement. In addition, in 2004, the Commission adopted an additional "safe harbor" for the 700 MHz band, when it declared that a carrier would be deemed to have met the substantial service requirement "if it provides coverage to at least 75% of the geographic area of at least 20% of the 'rural areas' within its licensed service area."<sup>13</sup>

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<sup>12</sup> See Service Rules for the 746-764 and 776-794 MHz Bands and Revisions to Part 27 of the Commission's Rules WT Dkt. No 99-168, First Report and Order, 15 FCC Rcd 476,505 (2000) ("Upper 700 MHz First Report and Order")

<sup>13</sup> See Facilitating the Provision of Spectrum-based Services to Rural Areas and Promoting Opportunities for Rural Telephone Companies to Provide Spectrum-Based Services, WT Docket No. 02-381 2000 Biennial Regulatory Review Spectrum Aggregation Circuits for Commercial Mobile Radio Services WT Docket No. 01-14, Increasing Flexibility to Promote Access to and the Efficient and Intensive Use of Spectrum and the Widespread Deployment of Wireless Services, and to Facilitate Capital Formation, WT Docket No. 03-202, Report and Order and Further Notice of Proposed Rulemaking, 19 FCC Rcd 19078, 19123 (2004) (Rural Report and Order)

These earlier orders reflect an evolution in the Commission's regulation of wireless performance requirements from lesser to greater flexibility. The Commission's original wireless performance standards, established in the eighties and early nineties for its Part 22 cellular licensees, provided for a five year "build out" period, which established a licensee's Cellular Geographic Service Area ("CGSA"), during which time licensees could expand their service areas free of competing applications. After that five year period, the areas not covered by the CGSA (which is itself defined by the 32 dBu contour of the carrier's signal coverage), were considered "unserved areas," open to applications by all, including the incumbent licensees.<sup>14</sup> In the mid-1990's, based on the cellular experience, the Commission modified these performance standards for PCS licensees, substituting requirements of one third population coverage for Major Trading Areas ("MTAs") after five years and two-thirds coverage after ten years. Basic Trading Area ("BTA") PCS licensees have been permitted to build out their networks at their own pace, after meeting an initial 25% population coverage requirement within the first five years of their license terms.<sup>15</sup>

Further, like Part 27 licensees, Part 24 PCS licensees are offered the additional option of providing "substantial service" within their licensed areas at five and ten year intervals.<sup>16</sup> Finally, the Commission's rules now provide for flexibility for wireless licensees to subdivide their service areas and provide opportunities for use of underutilized spectrum through the partition, disaggregation and spectrum leasing processes.<sup>17</sup> Though we prefer the flexibility of the PCS rules to the relatively awkward "Phase II" unserved area cellular licensing process, it is

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<sup>14</sup> See Sections 22.947-949 of the Commission's Rules.

<sup>15</sup> See Sections 24.203(a) and (b) of the Commission's Rules.

<sup>16</sup> Ibid

<sup>17</sup> See, e.g., Sections 1.9001-9080; 22.948; and 24.714 of the Commission's Rules.

clear that both sets of rules have "worked" to permit system expansion to unserved areas at a reasonable pace and to provide the nation with a flourishing national wireless network.

For example, while the cellular "unserved area" rule was intended to facilitate the creation of small, independent cellular systems to be constructed in previously unserved areas by rural carriers, for the most part, the rule has provided the means by which established carriers have expanded their systems gradually as additional cells could be justified economically. The coverage of various of our cellular systems, for example, has been expanded through the filing of 273 "unserved area" applications over the past fourteen years. In none of those instances has there been a mutually exclusive application filed by a rival applicant. And, as noted above, the PCS rules allow licensees to expand without the transaction costs imposed by the cellular Phase II licensing process once the basic population coverage percentages are met.

Through such prior experience, the Commission should understand that incumbent wireless carriers want to and will construct base stations anywhere such cells make reasonable economic sense. As is noted in the Commission's most recent CMRS "Competition Report,""

"[T]here is effective competition in the CMRS marketplace ..... 98 percent of the total U.S. population lives in countries with access to three or more operators offering mobile telephone service...

[T]he record indicates that competitive pressure continues to drive carriers to introduce innovative pricing plans and service offerings, and to match the pricing and service offerings introduced by rival carriers.... In addition, the deployment of next generation networks based on competing technological standards continues to be an important dimension of non-price rivalry in the U.S. mobile telecommunications market."<sup>19</sup>

The industry has constructed this national network without government subsidy, except for the limited support in some states provided to wireless Eligible Telecommunications Carriers

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<sup>18</sup> Annual Report and Analysis of Competitive Market Conditions with Respect to Commercial Mobile Services, Eleventh Report, 21 FCC Rcd 10947 (2006) ("Eleventh Report")

<sup>19</sup> Eleventh Report, at 10950.

by the Universal Service Fund. Indeed, the industry has contributed billions of dollars to the federal government and to state governments through spectrum auction payments, regulatory fees, and taxes. As of May 21, 2007, according to CTIA, there were 237,060,020 wireless subscribers in the United States. As of the end of 2006, the industry provided over 253,000 direct carrier jobs, and paid over \$ 7 billion in direct wages in the first half of last year. It invested \$10 billion in capital in the first half of 2006 and almost \$14 billion in the last half of the year.<sup>20</sup> The industry now faces its greatest challenge, namely the transition to advanced digital and IP based wireless services in part through the 700 MHz auction process. It is a challenge the industry is confident it can meet, which confidence is reflected in the capital investment statistics referred to above, provided carriers can build out the networks in an economically rational way and have reasonable assurance that their licenses, upon which all else depends, will be renewed.

However, the Further Notice's "substantial service" proposal, coupled with its action in the companion R&O dealing with renewal expectancy, threaten both of these prerequisites to economic and technological progress.

Any geographic coverage requirement, even if coupled with some kind of "keep what you use" requirement, will create powerful regulatory incentives to engage in economically irrational behavior, that is, building base stations, which would not otherwise be constructed just in order to save licenses. Basing performance requirements on geographic coverage is implicitly premised on the ideas that wireless licensees deliberately do not expand their service areas as rapidly as their financial situations and economic reality will permit and that other licensees will find it economically rational to provide service which such incumbents cannot or will not

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<sup>20</sup> [Http://ctia.org/media/industry\\_info/index.cfm/aid/10323](http://ctia.org/media/industry_info/index.cfm/aid/10323)

provide. The cellular "unserved area" experience suggests that both ideas are false and the Further Notice cites no evidence to suggest they are true.

A strict geographic coverage requirement will have other undesirable effects as well. It will mandate the definition by the Commission of digital service area contour boundaries, like the analog "dBU contour," which has not proven necessary in light of flexible PCS performance standards. It will also reintroduce to Commission jurisprudence the vexed subject of measuring wireless service over bodies of water, a frequent subject of controversy in cellular markets.<sup>21</sup> Further, as noted in the Further Notice (Para. 213) "government lands" would have to be first defined and then "excluded" from measurement, a task far more difficult to accomplish than the Commission acknowledges. Moreover, these measurement issues will be rendered all the more complicated by the varying coverage characteristics of different digital signal formats.

However, the greatest threat which the proposed performance requirements pose to the future of the wireless industry lies in how they may be interpreted in conjunction with the 700 MHz license renewal standards adopted in the companion R&O. The population "coverage" performance standards will be uncertain in their application owing to the signal strength measurement issues referred to above and will be difficult to meet in any case. However, even meeting the standards will not suffice to secure a license renewal expectancy. As the R&O notes (Para. 75):

"[s]ubstantial service in the renewal context, as opposed to the coverage benchmarks established for the performance requirement context, encompasses Commission consideration of a variety of factors, including the level and quality of service, whether service was ever interrupted or discontinued, whether service has been provided to rural areas, and any other factors associated with a licensee's level of service to the public. Accordingly, a licensee that meets the applicable performance requirements might

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<sup>21</sup> See, e.g. Bachow-Coastel, LLC v. GTE Wireless of the South, 16 FCC Red 4967 (2001).

nevertheless fail to meet the substantial service standard at renewal."

This vague language is an invitation to unproductive renewal challenges and will create uncertainty regarding 700 MHz renewal standards, which is contrary to the public interest. Moreover, the large financial investments necessary to building wireless systems have been and will be made only so long as there is a reasonable license renewal expectancy, based on ascertainable and clear standards. The Commission's renewal expectancy language in the R&O does not provide necessary clarity and the Commission should not compound that uncertainty by adopting unreasonable performance standards. It may be that in practice neither set of standards would have the negative effects foreseen here. However, they will certainly not have any good effects and thus should not be adopted. The existing 700 MHz performance standards reflect the lessons learned through 24 years of wireless history and should be left in place. We reiterate that the problem of providing service in rural areas, to the extent it is a problem, should be dealt with by appropriate sizing of service areas at the outset (see Section 1 above), as well as through the partitioning, disaggregation and spectrum leasing options already available under the existing rules.

4. The Commission Should Not Adopt the Frontline Proposal.

We oppose adoption of the Frontline proposal. It is not in keeping with the allocation of other spectrum in this proceeding. It would essentially eliminate competitive bidding for this spectrum and have large "cascade" effects with respect to bidding for other spectrum in the proceeding. For example, it would undermine the flexible bidding and aggregation opportunities put forward in the Balanced Consensus Plan.

It is not a good idea to adopt service rules which essentially replicate one carrier's business plan, in part because it will encourage an endless proliferation of self interested

spectrum proposals in the future. It also undermines existing rules and legitimate expectations. For example, the Commission has noted that it is likely that normal bidding preferences could not be applied if the Frontline proposal was adopted (Further Notice, Para. 284). Such disparate treatment of similar spectrum also violates the principles of competitive neutrality, which the Commission has embraced in other recent rulemakings.

Also, there is simply no way to know now whether Frontline's proposal would work. It is complicated, based on a "wholesale" service model which has not worked in the past (see "Band Manager Licensing," which the Order has now abolished for the 700 MHz guard bands<sup>22</sup>) and rests on many unproven assumptions about the likely behavior of other entities, particularly public safety entities. Allocating one sixth of the extraordinarily valuable 60 MHz of spectrum to be auctioned in this proceeding based on unproven assumptions is too great a risk to take,

As a means of winning support for its proposal, Frontline has also proposed "open access" to its network and "automatic roaming" for the customers of technically compatible systems. Conversely, it proposes that its network not be subject to CALEA, E911 or similar obligations applicable to other carriers. The Commission should proceed very cautiously here. "Open access" issues are being considered in the "Skype" proceeding. Those issues are complex and "open access" strikes at the heart of how the Commission has previously regulated wireless carriers, which has been based on carrier control over their networks, a system which has also contributed to the wireless success story described above. Moreover, it would be even more unworkable in this context than in the Skype context. If Frontline's proposal were adopted, the same spectrum would somehow have to accommodate a wholesale carrier, commercial lessees, and public safety users, in addition to those taking advantage of "open access." We support

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<sup>22</sup> R&O, Paras. 152-162.

vigorous FCC action on automatic roaming, but not in this proceeding.<sup>23</sup> CALEA and E911 are crucial public interest mandates, upon which Frontline's future competitors have spent and will spend many millions of dollars. Frontline's approach is the wrong approach.

5. The Commission Should Not Adopt Any Proposed Restriction on Incumbent Eligibility.

We oppose any restriction on the ability of ILECs, cable operators or wireless carriers to participate in the 700 MHz auction. Any such restriction would have to be supported by actual data showing a threat to competition from carriers holding excess spectrum and no such data have been produced. The long term business plans of many carriers have been shaped in part by the ability to bid for the propagation-rich spectrum available in this auction. That expectation has influenced bidding in prior auctions, post auction transactions and in operations to date. Moreover, a new set of rules excluding large categories of potential service providers or regulating "affiliate transactions" would be inefficient and counterproductive.

If the Commission is concerned about excessive spectrum concentration, however, it has available a simple yet effective remedy, namely a wireless spectrum "cap," as existed until 2003. The Commission could, if it wished, after appropriate inquiry, provide that no carrier or its affiliate could hold more than a certain amount of spectrum in a given county, say 70 MHz. This, rather than excluding categories of carriers from the 700 MHz auction altogether, or micromanaging their transactions, would be the preferable means to promote competition.

6. The Commission Should Only Withhold Bidder Identity and Interest Information if Bidder Eligibility is Below the Threshold Ratio.

In response to the Commission's Further Notice we reiterate our view that open bidding provides bidders, especially small and regional bidders, with important real-time information that helps them make appropriate strategic technology and valuation decisions and supports confident

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<sup>23</sup> See USCC Comments, filed November 28, 2005 and Reply Comments filed January 6, 2006, in WT Docket 05-265.



and active participation in spectrum auctions. The Commission should withhold this legitimately valuable information only when the level of prospective participation suggests a non-competitive auction is likely to occur. We also believe that adoption of a 700 MHz band plan which enhances the widest possible auction participation and competitiveness among bidders of all sizes is the best way to ensure that the 700 MHz auction is ultimately fair, objective, open and transparent for all bidders. And finally we strongly oppose the use of anonymous bidding, if applied to an auction involving package bidding, because it magnifies the already unfair burden that a package auction places on smaller bidders (the threshold problem.)

(1) We believe that the possible use of anonymous bidding procedures should only be triggered based on bidder eligibility levels as the Commission has approved in several recent CMRS auctions. If the Commission has specific concerns about whether the upcoming 700 MHz auction will be adequately competitive, it should apply an eligibility threshold ratio, updating the ratio originally adopted in connection with Auction #66.

Given the serious disadvantages which information restrictions create for smaller bidders, the Commission should avoid setting an unnecessarily high ratio. For example, in Auction #66 which Chairman Martin has called the "...most successful auction in the Commission's history,"<sup>24</sup> the actual initial eligibility ratio exceeded the Commission's 3.0 trigger by a thin fraction. We believe that the success of Auction #66 is evidence that the Commission was initially too conservative in setting this 3.0 trigger and that the Commission should propose an eligibility threshold ratio set at a more realistic level such as 2.5.

(2) We agree with the Commission's objective of minimizing anti-competitive behavior in auctions. Such behavior could not only reduce auction revenues, but also impede the

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<sup>24</sup> See FCC News Release, "Statement of Chairman Kevin J. Martin on the Conclusion of Advanced Wireless Services Auction" dated September 18, 2006.

opportunities of other bidders not engaged in such behavior. However unless the proposed concealment of bidder identity and interest information is subject to an eligibility threshold ratio trigger, such concealment could sacrifice the legitimate auction information needs of smaller and regional bidders, impede their full participation in the 700 MHz auction contrary to Congressional mandates in Section 309 (j) of the Communications Act, and likely reduce auction revenues.

For smaller and regional bidders the potential harms from withholding information about bidder identities and interests during an auction mean that they would be subject to risks and uncertainties which could impair or foreclose their auction participation. We comment on this issue from the perspective of smaller bidders because we believe these bidders make important contributions to the deployment of advanced technologies, particularly in rural and underserved areas, and because they are uniquely vulnerable if such information is withheld.

The special need of smaller bidders for bidder identity and interest information disclosures during an auction occurs because of their "strategic dependencies" and because they lack the more sophisticated market intelligence and analytical capabilities of larger bidders. For example:

- \* Because of the uncertainties about technology development, smaller carriers will value licenses differently based on whether the auction is dominated by technologically sophisticated, aggressive CMRS operators versus speculators, smaller bidders and new entrants, and whether the auction has many serious operators bidding versus only a few who may seek exclusivity on some infrastructure, equipment and handsets;

- \* Smaller bidders who are uncertain about when 700 MHz technologies will be ready for this band, what specific services they will support, their costs and their operating

characteristics will need to know whether the larger bidders who are market leaders, and can drive the development of base stations and handsets, are active in the auction;

- \* Smaller bidders will approach the auction with the expectation that licenses adjacent to certain other bidders (with which they have established relationships for technological compatibility, roaming, advanced service platforms, etc.) will be more valuable than licenses adjacent to different bidders. Depriving the smaller bidders of information on bidder identities will force them to make risky guesses, leading to impairment in their participation in the auction;

- \* Observing the bids of similarly-situated bidders and other bidders they view as well-informed helps smaller bidders to avoid risky guesses about valuations;

- \* Smaller carriers may also need to know the overall level of commitment larger carriers with compatible PCS/cellular technology are making to the band in order to make appropriate valuation decisions;

- \* Smaller bidders also need to know that they are bidding on markets adjacent to carriers likely to deploy compatible technologies, and in regions not dominated by a few large carriers; and

- \* Smaller bidders who must rely on third party financing are disadvantaged because financial investors will either withdraw or reduce the amounts they are prepared to invest because under anonymous bidding they are faced with additional elements of risk and uncertainty.

Chairman Martin stated at the conclusion of Auction #66

"... I am particularly pleased that more than half of the winning bidders were small businesses. I hope many of these smaller companies will fulfill the promise of advanced wireless services in America's underserved and rural areas." <sup>25</sup>

We think that smaller bidders will have a similar impact in the 700 MHz auction provided the Commission does not withhold the information "regardless of the likely level of competition." (Further Notice, Para. 248) The Commission has much to gain in terms of enhanced auction participation and increased auction revenues if smaller bidders are given access to the information they legitimately need. To the extent that the Commission believes that withholding information would have benefits in a less competitive auction, it should rely on its ability to gauge the anticipated competitiveness of the auction using an eligibility ratio and should set the threshold at a modest and reasonable level.

We strongly believe that disclosing the bids and bidders in each round promotes the legitimate needs of smaller bidders and the maximization of auction revenues and that withholding such information under anonymous bidding without a reasonable eligibility threshold ratio trigger will do much more harm than good to the competitiveness, transparency, and fairness of the auction.

(3) As noted earlier in our comments, we support the important steps which the Commission has already taken in deciding that a variety of geographic area sizes should be adopted " ... [to] provide a more balanced set of initial licensing opportunities at this time and make available more licenses to match the needs of different potential users." (R&O, Para. 43) On the question of whether the use of anonymous bidding should be a factor in determining the final band plan, we believe that the Commission's wise decision to adopt a substantial mix of license sizes will

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<sup>25</sup> Ibid.

have the corollary benefit of producing a robust, competitive auction by inviting the participation of a broader base of participants. In fact, we believe that a broad base of auction participants will do far more to realize the goal of fairness and competitiveness than an anonymous format would, another reason to be cautious in applying an eligibility ratio threshold that is too high. We believe that the Commission should continue to rely on its established auction objectives and other guidance set forth in Section 309(j) of the Communications Act on which to base its final band plan decision. The Commission should also continue to consider anonymous bidding issues as part of its auction procedure determinations.<sup>26</sup> The Commission's practice in recent auctions of using an eligibility threshold ratio trigger is an adequate and effective method for evaluating whether anonymous bidding should be employed, provided the threshold is set at a reasonable level.

(4) Also in the event the Commission were to allow for combinatorial or package bidding on specified groups of REAG licenses such as those identified in several of the Commission's band plan proposals, i.e. Proposals 1, 4 and 5, we believe that anonymous bidding should not be imposed because it would unfairly burden or foreclose the attempts of bidders for parts of a package from outbidding a provisionally winning package bid.

Bidders on individual licenses already suffer from their interdependency because none of them can obtain provisionally winning status unless they succeed collectively. They are precluded from coordinating their bids, yet their bids must be sufficient, in aggregate, to defeat a single unified package bidder. This situation creates a unique interdependency in which possible bidders for parts of a package need to be able to observe the bidding behavior of similarly-situated bidders to avoid risky guesses about valuations and about the prospects for encouraging other bidders to increase their bids for parts of a package.

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<sup>26</sup> See 47 U.S.C. § 309(j)(3)(E)(i)(requirement to seek comment on proposed auction procedures).

If the Commission adopts bid reactivation for older round bids as it did in Auction #51 to help deal with the "coordination" problem (discussed above in Section 2), the need for this information is compounded. Round-by-round bidder identity and interests information is essential for bidders to understand the likelihood and consequences of possible bids intended to outbid a provisionally winning package bid. It takes courage for an individual bidder to overcome the "free rider" dimension inherent in the threshold problem and to take action (perhaps even overbidding itself) to inspire its fellow individual bidders to collectively outbid the package.

Under anonymous bidding, the package bidding methodologies used in Auction #51 (mentioned in the Commission's Further Notice) which attempt to deal with the "free rider" and coordination problems by offering opportunities for bidders for parts of a package to ratchet up values for individual licenses and to permit bidders on other parts of the package to do the same are neutralized or ineffective. For example, knowing which bidders have previously bid on parts of a package, what values they currently attach to comparable licenses and on what licenses they currently have standing high bids could be decisive when trying to decide to increase a standing high bid for a part of a package. Under anonymous bidding, i.e. in circumstances where none of this information is available, the risks of foregoing other potentially promising bidding strategies for other licenses will be simply too great because a bidder doesn't have adequate information to gauge whether continuing to bid for a part of a package is a viable strategy. The ultimate result is that anonymous bidding, when coupled with package bidding procedures, makes it even less likely that small bidders will overcome the threshold problem.

## **Conclusion**

The successful participation of numerous new and incumbent local, rural, regional and national providers in Auction #66 is powerful evidence that a balanced band plan which flexibly accommodates a variety of business plans, including those of smaller bidders, enhances auction efficiency and public welfare. We support Commission adoption of a revised mix of primarily smaller license sizes to provide a more balanced set of initial licensing opportunities at this time and make available more licenses to match the needs of different potential users. The Commission also needs to consider that such licensing opportunities can be compromised or eliminated for smaller bidders if they are subjected to bias, uncertainty, complexity and strategic burdens under package bidding and anonymous bidding procedures. In the very high-stakes 700 MHz auction, the Commission stands the best chance of duplicating the success of Auction #66 by sticking with its familiar SMR procedures. We also believe that the Commission should not alter the wireless performance standards and license eligibility criteria for auction participation which have served this country well.

Respectfully submitted,

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